

Claims as presented in this Amendment - Response

The following list of claims supercedes all prior list(s) of claims.

Listing of claims

Claim 1 (previously presented): A speaker grille-integrated foamed thermoplastic resin molding for automotive interior comprising a base portion and a speaker grille having a plurality of opening holes wherein at least the base portion has a foamed layer and the foamed layer in the base portion has a density ρ of not greater than 0.6 g/cm^3 and an average expansion ratio of the speaker grille is 1 to 1.3 times, wherein the speaker grille is formed in one piece with the base portion from the same material as the base portion so as to be surrounded by the base portion.

C1 Claim 2 (original): The speaker-grille-integrated foamed thermoplastic resin molding for automotive interior according to claim 1, wherein the thermoplastic resin is a thermoplastic resin containing at least about 70% by weight of polypropylene-based resin.

Claim 3 (original): A method for producing a speaker-grille-integrated foamed thermoplastic resin molding for automotive interior, the method using a mold, which can be opened and closed, comprising a pair of a female and male mold members, the mold having an opening hole-forming pin for forming an opening hole of the speaker grille and a slide core that can be moved forward and backward in the mold opening-and-closing direction, the mold having a structure capable of causing the female and male mold members to form a partial contact state by means of the opening hole-forming pin and the slide core and capable of freely controlling a mold cavity clearance defined by the female and male mold members while causing the slide core to move so as to maintain the contact state, wherein the process comprises the steps of:

(a) charging a molten thermoplastic resin containing a foaming component into a mold cavity defined by the female and male mold members while causing the female and

EQ Function
Optimization

Appl. No. 09/853,160
Amdt. dated September 4, 2003
Reply to Office Action of April 1, 2003

male mold members to form the partial contact state by means of the opening hole-forming pin and the slide core;

(b) forming a solidified layer in a surface of the molten thermoplastic resin charged in the mold cavity;

(c) opening, after the formation of the solidified layer, the mold in the molding thickness direction so that the mold cavity clearance becomes the thickness of a final molding while moving the slide core so as to maintain the contact state, thereby foaming an unsolidified portion of the molten thermoplastic resin charged; and

(d) cooling a molding while maintaining the mold cavity clearance at the thickness of the final molding.

Claim 4 (currently amended): The method according to claim 3 characterized by use of a mold comprising [[a]] female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and a slide core installed in another mold member.

Claim 5 (currently amended): The method according to claim 3 characterized by use of a mold comprising [[a]] female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in the slide core installed in one mold member and a slide core installed in another mold member.

Claim 6 (currently amended): The method according to claim 3 characterized by use of a mold comprising [[a]] female and male mold members wherein the parting

Appl. No. 09/853,160
Amdt. dated September 4, 2003
Reply to Office Action of April 1, 2003

surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and the mold cavity surface of another mold member.

91 Claim 7 (currently amended): The method according to claim 3 characterized by use of a mold comprising [[a]] female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and the tip of an opening hole-forming pin installed in the slide core installed in another mold member.

Claim 8 (currently amended): The method according to claim 3 characterized by use of a mold comprising [[a]] female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in the slide core installed in one mold member and the tip of an opening hole-forming pin installed in the slide core installed in another mold member.
